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(54) Title: GROUP B STREPTOCOCCUS

(57) Abstract: Polypeptides and nucleic acids from *Streptococcus agalactiae* which can be used in the development of vaccines, for diagnostic purposes, and as targets for antibiotics.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2005/046491

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07K14/315 C12N15/31 C07K16/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C07K C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, Sequence Search, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE Geneseq [Online] 2 July 2002 (2002-07-02), "Streptococcus polypeptide SEQ ID NO 9444." XP002397445 retrieved from EBI accession no. GSP:ABP30134 Database accession no. ABP30134 The sequence has 100% identity with SEQ ID NO: 2 (corresponds to SEQ ID NO: 9444 of W00234771) & WO 02/34771 A (CHIRON S.P.A; THE INSTITUTE FOR GENOMIC RESEARCH; TELFORD, JOHN; MASIG) 2 May 2002 (2002-05-02)</p> <p style="text-align: center;">----- -/--</p>	1-16

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search

4 September 2006

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2005/046491

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE JPO Proteins [Online] 17 July 2003 (2003-07-17), "Nucleic acid and protein originating in group B Streptococcus." XP002397446 retrieved from EBI accession no. JPOP:BD629260 Database accession no. BD629260 The sequence has 99.2% identity with SEQ ID NO: 2</p>	1-16
X	<p>DATABASE Geneseq [Online] 30 May 2000 (2000-05-30), "Group B Streptococcus protein sequence SEQ ID NO:49." XP002397447 retrieved from EBI accession no. GSP:AAY91320 Database accession no. AAY91320 The sequence has 99.2% identity with SEQ ID NO: 2 & WO 00/06736 A (MICROBIAL TECHNICS LIMITED; LE PAGE, RICHARD, WILLIAM, FALLA; WELLS, J) 10 February 2000 (2000-02-10)</p>	1-16
P,X	<p>DATABASE Geneseq [Online] 24 February 2005 (2005-02-24), "Streptococcus agalactiae protein, SEQ ID 2383." XP002397448 retrieved from EBI accession no. GSP:ADV81242 Database accession no. ADV81242 The sequence has 100% identity with SEQ ID NO: 2 (corresponds to SEQ ID NO: 2383 of WO0292818) & WO 02/092818 A (INSTITUT PASTEUR; CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE; GLASER) 21 November 2002 (2002-11-21)</p>	1-16

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/046491

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-16 (all partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: 1-16 (all partially)

Claims insofar as they relate to the nucleic acid having SEQ ID NO: 1 and the corresponding protein having SEQ ID NO: 2

Inventions 2- 11370: Claims 1 to 16 (all partially)

Claims insofar as they relate to the nucleic acids having SEQ ID NO: 3 to 22739 (odd numbers) and the corresponding proteins having SEQ ID NOs: 2 to 22740 (even numbers)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2005/046491

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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			EP 1328543 A2	23-07-2003
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